

A B S T R A C T

A vibration motor comprising at least one stationary part and one part driven to move relative to ^{the} ~~said~~ fixed part, together with excitation ^{means} ~~that is~~ suitable for exerting forces that tend to move rigid contact sectors presented by ^{the} ~~said~~ fixed part and/or ^{the} ~~said~~ moving part and to cause ^{the} ~~said~~ rigid sectors to vibrate in vibration modes that combine tangential vibration and normal vibration, thereby driving the movement of the moving part, ^{the} ~~said~~ motor presenting for the tangential vibration or the normal vibration a main resonant mode and at least one secondary resonant mode, wherein the secondary resonant mode is at a frequency that is substantially equal to a harmonic frequency of the main resonant mode.